Department of Mines, Petroleum and Exploration

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	9128/3
Permit type:	Purpose permit
Applicant name:	Northern Star Resources Ltd
Application received:	18 June 2025
Application area:	400 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical removal
Tenure:	General Purpose Lease 53/20
	Mining Lease 53/191
	Mining Lease 53/412
	Mining Lease 53/413
	Mining Lease 53/414
Location (LGA area/s):	Shire of Wiluna
Colloquial name:	TSF3 and Gateway Waste Rock Landform Project

1.2. Description of clearing activities

Northern Star Resources Ltd proposes to clear up to 400 hectares of native vegetation within a boundary of approximately 1,011.829 hectares, for the purpose of mineral production and associated activities. The project is located approximately 40 kilometres north-east of Wiluna, within the Shire of Wiluna.

Clearing permit CPS 9128/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Mines, Petroleum and Exploration) on 10 February 2021 and was valid from 5 March 2021 to 31 December 2025. The permit authorised the clearing of up to 400 hectares of native vegetation within a boundary of approximately 1,011.829 hectares, for the purpose of mineral production and associated activities.

Northern Star Resources Ltd applied for CPS 9128/2 on 24 November 2022 however the application was later withdrawn following recommendation from the department. The proposed amendment saw an increase in clearing area by 260 hectares and an increase in the clearing boundary by 376 hectares. For these reasons it was recommended the amendment application be withdrawn and re-submitted as a new application (see CPS 10001/1).

On 18 June 2025, the permit holder applied to amend CPS 9128/1 to extend the permit duration by five years to 31 December 2030. The area of clearing authorised and the permit boundary remains unchanged.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	18 December 2025
Decision area:	400 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Mines, Petroleum and Exploration (DMPE) advertised the application for a public comment for a period of 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix A), relevant datasets (Appendix E), including the results of a flora and vegetation survey (Appendix D), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration the purpose of the clearing to undertake mineral production and associated activities.

Given the assessment has not changed since the assessment for CPS 9128/1 and after consideration of the available information, as well as the applicant's minimisation and mitigation measures (Section 3.1), the Delegated Officer determined that the proposed extension of the duration is unlikely to lead to appreciable land degradation nor have long-term adverse impacts on environmental values. The proposed clearing can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Mining Act 1978* (WA)

Relevant agreements (treaties) considered during the assessment include:

- Japan-Australia Migratory Bird Agreement
- China-Australia Migratory Bird Agreement
- Republic of Korea-Australia Migratory Bird Agreement

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Guidance for the Assessment of Environmental Factors – *Terrestrial Fauna Surveys for Environmental Impact*
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values. The mining proposal includes an environmental risk assessment process that ensures appropriate risk management strategies are implemented to manage risks to people, the environment, and communities (Northern Star, 2020). The risk assessment consequence definition matrix presented in the mining proposal categorises levels of risk into biodiversity, land and soils, rehabilitation and mine closure, social and water resources (Northern Star, 2020).

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed from the clearing permit decision report CPS 9128/1. The assessment against the clearing principles (Appendix B) identified the impacts of the proposed clearing are limited and able to be managed to be environmentally acceptable with avoid and minimise, weed hygiene, and erosion management conditions. Given the values identified within the application area and the review of current information, additional flora and fauna surveys were not considered necessary for the assessment of this amendment.

3.2.1. Biological values (flora) - Clearing principle (a)

Assessment

The application area is located within the Eastern Murchison subregion of the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Eastern Murchison subregion is characterised by internal drainage and extensive areas of elevated red desert sandplains with minimal dune development (CALM, 2002). Vegetation of the subregion is dominated by Mulga woodlands (often rich in ephemerals), hummock grasslands, saltbush shrublands and *Tecticornia* shrublands (CALM, 2002). Pastoral grazing occurs over a vast majority of the subregion, and consequently, much of the subregion has been severely degraded by feral herbivores. Mining for gold and nickel in the region is considerable with most mining tenements occurring on pastoral land (CALM, 2002).

A reconnaissance flora and vegetation survey over a significant portion of the application area was undertaken by Botanica Consulting Pty Ltd in March and April 2020. Four vegetation types were identified within the application area, with the major

vegetation groups being made up of Acacia forests and woodlands (Botanica Consulting, 2020). These vegetation communities are common and widespread in the region (Botanica Consulting, 2020).

No conservation significant flora or Threatened or Priority Ecological Communities have been identified within the application area (Botanica Consulting, 2020). The following two Priority flora species may potentially occur within the application area:

- *Aristida jerichoensis* var. *subspinulifera*, Priority 3, is a compactly tufted perennial, grass-like or herb lemma groove muricate which can be found inhabiting hardpan, loam, clay loam plains with open Acacia woodlands over Triodia and other grasses, often near drainage lines (WA Herbarium, 1998-). The species grows between 0.3-0.8 metres high and has been recorded from 45 locations within the Central Ranges, Gascoyne, Murchison and Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) regions (WA Herbarium, 1998-). *Aristida jerichoensis* var. *subspinulifera* has been recorded within five kilometres of the application area, however the flora and vegetation survey did not identify any individuals of this species within the survey area (Botanica Consulting, 2020). The survey did not encompass the entire application area, and therefore the species may potentially occur. Despite this, the habitat present within the application area is well represented in surrounding areas, therefore the proposed clearing is not likely to have a significant impact on the species.
- *Ptilotus luteolus,* Priority 3, is a shrub or perennial herb that can be found inhabiting rocky slopes, scree, and ridges (WA Herbarium, 1998-). The species has been recorded from 18 locations from the Carnarvon, Gascoyne and Murchison IBRA regions (WA Herbarium, 1998-). This species has been recorded within 30 kilometres of the application area, however the flora and vegetation survey did not identify any individuals of this species within the survey area (Botanica Consulting, 2020). The survey did not encompass the entire application area, and therefore this species may potentially occur. The habitat present within the application area is well represented in surrounding areas and the application area is not considered significant to this species, therefore the proposed clearing is not likely to have a significant impact on the species.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing can be managed by taking the steps to avoid and minimise the extent of the clearing.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- avoid, minimise to reduce the impacts and extent of clearing; and
- take hygiene steps to minimise the risk of the introduction and spread of weeds.

3.2.2. Biological values (fauna) - Clearing principle (b)

Assessment

Two field surveys were carried out during March and April in 2020 (Botanica Consulting, 2020). The following four broad habitat types were identified within the application area:

- Clay-Loam Plain
- Quartz-Rocky Plain
- Rocky Slope
- Sand-Loam Plain

These fauna habitats are common and widespread in the local area and region (Botanica Consulting, 2020).

During the fauna survey, no species of conservation significance were observed (Botanica Consulting, 2020). However, three species of conservation significance have been identified as potentially utilising the application area:

Falco hypoleucos (grey falcon), Vulnerable, is an elusive species endemic to mainland Australia, occurring in arid and semi-arid Australia (DCCEEW, 2025). The species is known to frequent timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined watercourses. The species has been observed hunting in treeless areas and frequenting tussock grassland and open woodland, particularly in winter (DCCEEW, 2025). The species has been recorded within five kilometres of the application area and may forage within the area; however no suitable breeding habitat was identified within the application area. The proposed clearing is not likely to result in a significant impact to this species or its habitat (Botanica Consulting, 2020).

Falco peregrinus (peregrine falcon), Other Specially Protected Species, inhabits cliffs, coastal habitats, rivers, wooded watercourses, lakes and urban environments (DCCEEW, 2025). No individuals have been recorded within the local area, with the closest record approximately 32 kilometres northwest of the application area. As the species only uses some areas of the application area as part of a much larger home range, often for foraging, it is determined that proposed clearing is not likely to result in a significant impact to this species or its habitat (Botanica Consulting, 2020).

Dasycercus sp. (crest-tailed / brush-tailed mulgara), Priority 4, occurs in small, scattered populations in arid sandy regions that support spinifex grasslands (CALM, 2002). There are six historical records of *Dasycercus blythi* (brush-tailed mulgara) within three kilometres of the application area and one historical record of a *Dasycercus* sp. (non-specified mulgara) located within 15 kilometres of the application area. The species preferred habitat is absent; however it is also known to occur on clay-loam and sand-loam plains which are abundant throughout the application area. There is suitable habitat throughout the surrounding region, specifically within the Bullimore land system which features gently undulating sandplains with occasional linear dunes

and spinifex grasslands, supporting several *Dasycercus* sp. populations (GIS Database). that the proposed clearing is not likely to result in a significant impact to this species or its habitat (Botanica Consulting, 2020).

Fourteen migratory shorebird species have been recorded within 20 kilometres of the application area (GIS Database). These species prefer muddy edges of shallow fresh or brackish wetlands (Botanica Consulting, 2020). As no suitable habitat occurs within the application area, these migratory birds are not likely to utilise the area and therefore the proposed is not likely to impact migratory shorebirds or their preferred habitat.

Conclusion

Based on the above assessment, the proposed clearing will not result in the loss of significant habitat for conservation significant fauna species. For the reasons set out above, it is considered that a fauna management condition is not required.

3.3. Relevant planning instruments and other matters

The clearing amendment application was advertised on 9 September 2025 by the Department of Mines, Petroleum and Exploration inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WCD2013/004) over the area under application (DPLH, 2025). This claim has been determined by the Federal Court on behalf of the claimant group (Tarlka Matuwa Piarku). The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2025). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

- A Mining Development and Closure Proposal approved under the *Mining Act 1978*

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is part of the existing Jundee gold mine operations (Northern Star, 2025). Mining for gold and nickel in the region and local area is considerable, with most mining tenements occurring on pastoral land (CALM, 2002). As a result, much of the surrounding area has been impacted by previous pastoral and current mining activities (Botanica Consulting, 2020; GIS Database).
Ecological linkage	Based on aerial imagery, the application area does not form part of any formal or informal ecological linkages (GIS Database).
Conservation areas	The application area is not located in any known or mapped conservation area. The closest record is Matuwa Kurrara Kurrara National Park located more than 40 kilometres east of the application area (GIS Database).
Vegetation description	The vegetation of the application area is broadly mapped as the following Beard vegetation association: 18: Low woodland; mulga (*Acacia aneura*) (GIS Database). Two flora and vegetation surveys have been conducted over the application area by Botanica Consulting during March and April 2020. The following vegetation associations were recorded within the application area (Botanica Consulting, 2020; GIS Database): **Clay-Loam Plain:** Low woodland of *Acacia incurvaneura* over low shrubland of *Eremophila forrestii* / *E. margarethae* and low tussock grassland of *Eragrostis eriopoda* on clay-loam plain. **Quartz-Rocky Plain (Acacia Open Woodland):** Low open woodland of *Acacia incurvaneura* / *Hakea lorea* over mid open shrubland of *Eremophila fraseri* and low shrubland of *Eremophila margarethae* on quartz-rocky plain. **Quartz-Rocky Plain (Acacia Forests and Woodland):** Low open woodland of *Acacia incurvaneura* over mid open shrubland of *Psydrax suaveolens* and low open tussock grassland of *Eragrostis eriopoda* on quartz-rocky plain. **Sand-Loam Plain:** Low woodland of *Acacia caesaneura* / *A. incurvaneura* over mid open shrubland of *Eremophila forrestii* and low hummock grassland of *Triodia basedowii* on sand-loam plain. **Cleared Vegetation:** Cleared vegetation. Representative photos can be found in Appendix D.
Vegetation condition	The vegetation survey (Botanica Consulting, 2020) and aerial imagery indicate the vegetation within the proposed clearing area is in 'Completely Degraded' to 'Very Good' (Trudgen, 1991) condition. The full Trudgen (1991) condition rating scale is provided in Appendix C.
Climate and landform	The climate of the region (Murchison) is arid and experiences an average annual rainfall of 211.4 millilitres (BoM, 2025).
Soil description	The soil is broadly mapped as falling within the Violet land system, Jundee land system, and Wiluna land system.
Land degradation risk	The application area falls within three land systems: Violet land system, Jundee land system and Wiluna land system (DPIRD, 2025). These land systems are generally not susceptible to erosion (Curry et al., 1994).
Waterbodies	The desktop assessment and aerial imagery indicated that the application area does not transect any watercourses or waterbodies (GIS Database). There are no Ramsar wetlands or wetlands of national importance (ANC Wetlands), permanent or ephemeral drainage lines occur within the application area (GIS Database).
Hydrogeography	The application area is not mapped within a proclaimed groundwater area (GIS Database). The proposed area is located within the Murchison Groundwater Area (GIS Database).
Flora	There are no conservation significant flora species that occur within the application area (Botanica Consulting, 2020; GIS Database). According to available datasets, there are two Priority flora species that occur within 20 kilometres of the application area and no threatened flora species (GIS Database).

Characteristic	Details
Ecological communities	The application area is not located within a Threatened Ecological Community (GIS Database). A Priority 1 Ecological Community buffer, Jundee Homestead calcrete groundwater assemblage type on Carnegie paleodrainage on Jundee Station, is located within approximately 110 metres of the application area (GIS Database).
Fauna	There are no conservation significant fauna within the application area (GIS Database). According to available datasets, there are 17 conservation significant fauna species within 20 kilometres of the application area (GIS Database).
Fauna habitat	The flora, vegetation and fauna survey undertaken by Botanica Consulting during March and April 2020 identified four broad scale fauna habitats: • Clay-Loam Plain: Acacia Woodland; • Quartz-Rocky Plain: Acacia Open Woodland/Woodland; • Rocky Slope: Acacia Woodland; and • Sand-Loam Plain: Acacia Woodland (Botanica Consulting, 2020; GIS Database).

A.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA Bioregion - Murchison	28,120,586.77	28,044,823.42	99.73	2,185,987.96	7.77
Beard vegetation associations - State					
Veg Assoc No. 18	19,892,306.46	19,843,148.07	99.75	1,317,179.00	6.62
Beard vegetation associations - Bioregion					
Veg Assoc No. 18	12,403,172.30	12,363,252.47	99.68	614,964.13	4.96

Government of Western Australia (2019)

A.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and biological survey information, impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)
Tribulus adelacanthus	P3	N	N	N	<5	19
Aristida jerichoensis var. *subspinulifera*	P3	Y	Y	Y	<5	49
Ptilotus luteolus	P3	Y	Y	Y	<30	20

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

A.4. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (Appendix E.1), and biological survey information, impacts to the following conservation significant fauna required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (local area)
Dasycercus blythi (brush-tailed mulgara)	P4	Y	<5	6

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of known records (local area)
Falco hypoleucos (grey falcon)	VU	N	<10	1
Falco peregrinus (peregrine falcon)	OS	N	N/A	N/A
Actitis hypoleucos (common sandpiper)	MI	N	<15	3
Apus pacificus (fork-tailed swift)	MI	N	<15	1
Calidris acuminata (sharp-tailed sandpiper)	MI	N	<15	1
Calidris alba (sanderling)	MI	N	<15	1
Calidris melanotos (pectoral sandpiper)	MI	N	<15	1
Calidris ruficollis (red-necked stint)	MI	N	<15	4
Calidris subminuta (long-toed stint)	MI	N	<15	1
Charadrius veredus (oriental plover)	MI	N	<15	1
Gelochelidon nilotica (gull-billed tern)	MI	N	<15	2
Glareola maldivarum (oriental pratincole)	MI	N	<15	1
Plegadis falcinellus (glossy ibis)	MI	N	<15	1
Pluvialis fulva (Pacific golden plover)	MI	N	<15	1
Tringa glareola (wood sandpiper)	MI	N	<15	1
Tringa nebularia (common greenshank)	MI	N	<15	1
Dasycercus sp. (mulgara)	P4	N	<15	1

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The application area contains suitable habitat for conservation significant flora species (Botanica Consulting, 2020; GIS Database).	Not likely to be at variance (as per CPS 9128/1)	Yes
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The application area may contain suitable habitat for some conservation significant fauna species.	Not likely to be at variance (as per CPS 9128/1)	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: No Threatened flora species were recorded within the application area (Botanica Consulting, 2020; GIS Database).	Not likely to be at variance (as per CPS 9128/1)	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: There are no known Threatened Ecological Communities within the application area (GIS Database).	Not likely to be at variance (as per CPS 9128/1)	No
Environmental value: significant remnant vegetation and conservation areas		

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). Over 99 per cent of the pre-European vegetation still exists in the Murchison Bioregion (Government of Western Australia. 2019). The application area is broadly mapped as Beard vegetation association 18 which retains over 99 per cent of pre-European levels of vegetation within the state and bioregion (Government of Western Australia, 2019). This is above the 30 per cent threshold level recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (Commonwealth, of Australia, 2001).	Not at variance (as per CPS 9128/1)	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: Given the distance to the nearest conservation area (GIS Database), the proposed clearing is not likely to have an impact on the environmental values of any nearby conservation areas.	Not likely to be at variance (as per CPS 9128/1)	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Given that no watercourses or wetlands are recorded within the application rea, the proposed clearing is unlikely to impact vegetation growing in, or in association with, an associated watercourse or wetland (GIS Database).	Not at variance (as per CPS 9128/1)	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The application area lies within the Violet, Jundee and Wiluna land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by former Department of Agriculture (now the Department of Primary Industries and Regional Development). The Violet land system is consists of 'Gently undulating gravelly plains on greenstone. Laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and patchy halophytic shrublands.' This land system is generally not susceptible to erosion (Cury et a., 1994). The Jundee land system is described as 'Hardpan plains with ironstone gravel mantles and occasional sandy banks supporting mulga shrublands'. This land system is not generally susceptible to erosion (Curry et al., 1994). The Wiluna land system is described as 'Low greenstone hills with occasional lateritic breakaways and broad stony slopes, lower saline stony plains and broad drainage tracts; supporting sparse mulga and other acacia shrublands with patches of halophytic shrubs.' This land system is not generally susceptible to erosion (Curry et al., 1994). While the land systems within the application area are generally not susceptible to erosion, the clearance of native vegetation should be staged where possible as to minimise the area of land exposed to land degradation at any one time. Potential impacts to native vegetation as a result of land degradation can be minimised by the continued implementation of a staged clearing condition.	May be at variance (as per CPS 9128/1)	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: There are no watercourses, wetlands or Public Drinking Water Source Areas within the application area (GIS Database). As a result, the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.	Not likely to be at variance (as per CPS 9128/1)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: There are no watercourses, wetlands or Public Drinking Water Source Areas within the application area (GIS Database). Between 3,200 and 3,600 millimetres evaporate from the region every year, significantly higher than the annual rainfall recorded, suggesting a low risk of flooding (Commonwealth of Australia, 2006). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.	Not likely to be at variance (as per CPS 9128/1)	No

Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Biological survey information excerpts / photographs of the vegetation / DMPE site inspection report

The following photographs represent the dominant vegetation communities in the application area (Botanica Consulting, 2020).

Figure 1. Clay-loam plain (Acacia forests and woodlands)

Figure 2. Quartz-rocky plain (Acacia open woodlands)

Figure 3. Quartz-rocky plain (Acacia forests and woodlands)

Figure 4. Sand-loam plain (Acacia forests and woodlands)

Appendix E. Sources of information

E.1. GIS datasets

Publicly available GIS datasets used (sourced from www.data.wa.gov.au):

- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Groundwater Salinity Statewide (DWER-026)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- IBSA Survey Details (DWER-118)
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Native Title (Determination) (LGATE-066)
- Native Vegetation Extent (DPIRD-005)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Townsites (LGATE-248)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened and Priority Flora (TPFL)
- Threatened and Priority Flora (WAHerb)
- Threatened and Priority Fauna
- Threatened and Priority Ecological Communities
- Threatened and Priority Ecological Communities (Buffers)

E.2. References

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Glossary

Acronyms:

BC Act	*Biodiversity Conservation Act 2016,* Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety (now DMPE)
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DMPE)
DMP	Department of Mines and Petroleum, Western Australia (now DMPE)
DMPE	Department of Mines, Petroleum and Exploration
DoEE	Department of the Environment and Energy (now DCCEEW)

DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	*Environmental Protection Act 1986*, Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

DBCA (2023) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia:

Threatened species

T Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the Biodiversity Conservation Act 2016 (BC Act).

Threatened fauna is the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

Threatened flora is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of Ministerial Guideline Number 1 and Ministerial Guideline Number 2 that adopts the use of the International Union for Conservation of Nature (IUCN) Red List of Threatened Species Categories and Criteria, and is based on the national distribution of the species.

CR **Critically endangered species**

Threatened species considered to be "*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.

EN **Endangered species**

Threatened species considered to be "*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.

VU **Vulnerable species**

Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.

Extinct species

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

EX **Extinct species**

Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

EW **Extinct in the wild species**

Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild.

Specially protected species

SP **Specially protected species**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered, or vulnerable) or extinct species under the BC Act cannot also be listed as specially protected species.

MI **Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

CD **Species of special conservation interest (conservation dependent fauna)**

Species of special conservation need that are dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Currently only fauna are listed as species of special conservation interest.

OS **Other specially protected species**

Species otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Currently only fauna are listed as species otherwise in need of special protection.

Priority species

P **Priority species**

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department's website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

Species that are adequately known, meet criteria for near threatened, or are rare but not threatened, or that have been recently removed from the threatened species list or conservation dependent or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of priority status is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 **Priority One - Poorly-known species – known from few locations, none on conservation lands**

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species – known from few locations, some on conservation lands**

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species – known from several locations**

Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.

P4 **Priority Four - Rare, Near Threatened and other species in need of monitoring**

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.

(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.

(d) Other species in need of monitoring.

Principles for clearing native vegetation:

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

(j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.